

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 09/937,665B
Source: IFW/b
Date Processed by STIC: 12/15/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 12/15/2005

PATENT APPLICATION: US/09/937,665B

TIME: 11:41:43

Input Set : D:\J&J-1825.ST25.txt

Output Set: N:\CRF4\12152005\I937665B.raw

3 <110> APPLICANT: Kutchan, Toni M.
4 Zenk, Meinhart H.
5 Atkins, David G.
6 Fist, Anthony J.
8 <120> TITLE OF INVENTION: CODEINONE REDUCTASE FROM ALKALOID POPPY
10 <130> FILE REFERENCE: J&J-1825
12 <140> CURRENT APPLICATION NUMBER: US 09/937,665B
13 <141> CURRENT FILING DATE: 2002-02-20
15 <150> PRIOR APPLICATION NUMBER: PCT/AU00/00249
16 <151> PRIOR FILING DATE: 2000-03-24
18 <150> PRIOR APPLICATION NUMBER: AU PP 9463
19 <151> PRIOR FILING DATE: 1999-03-26
21 <160> NUMBER OF SEQ ID NOS: 29
23 <170> SOFTWARE: PatentIn version 3.3
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 20
27 <212> TYPE: DNA
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: PCR Primer
34 <220> FEATURE:
35 <221> NAME/KEY: misc_feature
36 <222> LOCATION: (3)..(3) ✓
37 <223> OTHER INFORMATION: n = A or G
39 <220> FEATURE:
40 <221> NAME/KEY: misc_feature
41 <222> LOCATION: (6)..(6) ✓
42 <223> OTHER INFORMATION: n = T or C
44 <220> FEATURE:
45 <221> NAME/KEY: misc_feature
46 <222> LOCATION: (9)..(9) ✓
47 <223> OTHER INFORMATION: n = T or C
49 <220> FEATURE:
50 <221> NAME/KEY: misc_feature
51 <222> LOCATION: (12)..(12) ✓
52 <223> OTHER INFORMATION: n = A or C or T
54 <220> FEATURE:
55 <221> NAME/KEY: misc_feature
56 <222> LOCATION: (15)..(15) ✓
57 <223> OTHER INFORMATION: n = T or G
59 <220> FEATURE:
60 <221> NAME/KEY: misc_feature ✓
61 <222> LOCATION: (18)..(18) ✓

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RAW SEQUENCE LISTING

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Input Set : D:\J&J-1825.ST25.txt

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62 <223> OTHER INFORMATION: n = T or C
64 <400> SEQUENCE: 1
W--> 65 gancnttttna tnacntcnaa 20
68 <210> SEQ ID NO: 2
69 <211> LENGTH: 26
70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: PCR Primer
77 <220> FEATURE:
78 <221> NAME/KEY: misc_feature
79 <222> LOCATION: (3)..(3)
80 <223> OTHER INFORMATION: n = T or C
82 <220> FEATURE:
83 <221> NAME/KEY: misc_feature
84 <222> LOCATION: (6)..(6)
85 <223> OTHER INFORMATION: n = i
87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (8)..(8)
90 <223> OTHER INFORMATION: n = T or G
92 <220> FEATURE:
93 <221> NAME/KEY: misc_feature
94 <222> LOCATION: (9)..(9)
95 <223> OTHER INFORMATION: n = T or A
97 <220> FEATURE:
98 <221> NAME/KEY: misc_feature
99 <222> LOCATION: (12)..(12)
100 <223> OTHER INFORMATION: n = i
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <222> LOCATION: (24)..(24)
105 <223> OTHER INFORMATION: n = G or A
107 <400> SEQUENCE: 2
W--> 108 ttncncnng cnaactgcaat ctgntg 26
111 <210> SEQ ID NO: 3
112 <211> LENGTH: 21
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: PCR Primer
120 <220> FEATURE:
121 <221> NAME/KEY: misc_feature
122 <222> LOCATION: (4)..(4)
123 <223> OTHER INFORMATION: n = T or C
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (10)..(10)
128 <223> OTHER INFORMATION: n = T or C

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130 <220> FEATURE:
 131 <221> NAME/KEY: misc_feature
 132 <222> LOCATION: (16)..(16)
 133 <223> OTHER INFORMATION: n = C or G
 135 <220> FEATURE:
 136 <221> NAME/KEY: misc_feature
 137 <222> LOCATION: (19)..(19)
 138 <223> OTHER INFORMATION: n = i
 140 <400> SEQUENCE: 3
 W--> 141 catntccacn tgattnacna c 21
 144 <210> SEQ ID NO: 4
 145 <211> LENGTH: 29
 146 <212> TYPE: DNA
 147 <213> ORGANISM: Artificial Sequence
 149 <220> FEATURE:
 150 <223> OTHER INFORMATION: PCR primer
 153 <220> FEATURE:
 154 <221> NAME/KEY: misc_feature
 155 <222> LOCATION: (3)..(3)
 156 <223> OTHER INFORMATION: n = i
 158 <220> FEATURE:
 159 <221> NAME/KEY: misc_feature
 160 <222> LOCATION: (6)..(6)
 161 <223> OTHER INFORMATION: n = i
 163 <220> FEATURE:
 164 <221> NAME/KEY: misc_feature
 165 <222> LOCATION: (9)..(9)
 166 <223> OTHER INFORMATION: n = C or T
 168 <220> FEATURE:
 169 <221> NAME/KEY: misc_feature
 170 <222> LOCATION: (12)..(12)
 171 <223> OTHER INFORMATION: n = A or G
 173 <220> FEATURE:
 174 <221> NAME/KEY: misc_feature
 175 <222> LOCATION: (15)..(15)
 176 <223> OTHER INFORMATION: n = i
 178 <220> FEATURE:
 179 <221> NAME/KEY: misc_feature
 180 <222> LOCATION: (18)..(18)
 181 <223> OTHER INFORMATION: n = A or G
 183 <220> FEATURE:
 184 <221> NAME/KEY: misc_feature
 185 <222> LOCATION: (22)..(22)
 186 <223> OTHER INFORMATION: n = A or T
 188 <220> FEATURE:
 189 <221> NAME/KEY: misc_feature
 190 <222> LOCATION: (23)..(23)
 191 <223> OTHER INFORMATION: n = G or C
 193 <220> FEATURE:

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194 <221> NAME/KEY: misc_feature
195 <222> LOCATION: (24)..(24) ✓
196 <223> OTHER INFORMATION: n = i
198 <220> FEATURE:
199 <221> NAME/KEY: misc_feature ✓
200 <222> LOCATION: (27)..(27)
201 <223> OTHER INFORMATION: n = i
203 <400> SEQUENCE: 4
W--> 204 gtngtanaanc angtnanganat gnnnccnac 29
207 <210> SEQ ID NO: 5
208 <211> LENGTH: 21
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: PCR primer
215 <400> SEQUENCE: 5
216 atggagagta atggtgtacc t 21
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 21
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: PCR primer
227 <400> SEQUENCE: 6
228 gacagtcctc acttaccatc t 21
231 <210> SEQ ID NO: 7
232 <211> LENGTH: 33
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Primer
239 <400> SEQUENCE: 7
240 atggctagca tggagagtaa tgggtgtacct atg 33
243 <210> SEQ ID NO: 8
244 <211> LENGTH: 33
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Primer
251 <400> SEQUENCE: 8
252 aagggatcca tccttctcat ccagaaactc ttc 33
255 <210> SEQ ID NO: 9
256 <211> LENGTH: 7
257 <212> TYPE: PRT
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Synthetic Construct
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature

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TIME: 11:41:43

Input Set : D:\J&J-1825.ST25.txt

Output Set: N:\CRF4\12152005\I937665B.raw

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266 <222> LOCATION: (1)..(1)
267 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
269 <400> SEQUENCE: 9
W--> 271 Xaa Leu Gln Glu Leu Met Ala
272 1 5
275 <210> SEQ ID NO: 10
276 <211> LENGTH: 11
277 <212> TYPE: PRT
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Synthetic Construct
283 <400> SEQUENCE: 10
285 Val Leu His Gln Ile Ala Val Ala Arg Gly Lys
286 1 5 10
289 <210> SEQ ID NO: 11
290 <211> LENGTH: 10
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Synthetic Construct
297 <400> SEQUENCE: 11
299 Asp Asp Asp Glu Leu Phe Ile Thr Ser Lys
300 1 5 10
303 <210> SEQ ID NO: 12
304 <211> LENGTH: 16
305 <212> TYPE: PRT
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Synthetic Construct
311 <400> SEQUENCE: 12
313 Ile Pro Asp Val Val Asn Gln Val Glu Met Ser Pro Thr Leu Gly Gln
314 1 5 10 15
317 <210> SEQ ID NO: 13
318 <211> LENGTH: 7
319 <212> TYPE: PRT
320 <213> ORGANISM: Artificial Sequence
322 <220> FEATURE:
323 <223> OTHER INFORMATION: Synthetic Construct
326 <220> FEATURE:
327 <221> NAME/KEY: misc_feature
328 <222> LOCATION: (1)..(1)
329 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
331 <400> SEQUENCE: 13
W--> 333 Xaa Val Asn Glu Ile Pro Lys
334 1 5
337 <210> SEQ ID NO: 14
338 <211> LENGTH: 5
339 <212> TYPE: PRT
340 <213> ORGANISM: Artificial Sequence

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/937,665B

DATE: 12/15/2005
TIME: 11:41:44

Input Set : D:\J&J-1825.ST25.txt
Output Set: N:\CRF4\12152005\I937665B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 3,6,9,12,15,18
Seq#:2; N Pos. 3,6,8,9,12,24
Seq#:3; N Pos. 4,10,16,19
Seq#:4; N Pos. 3,6,9,12,15,18,22,23,24,27
Seq#:9; Xaa Pos. 1
Seq#:13; Xaa Pos. 1
Seq#:14; Xaa Pos. 1
Seq#:15; Xaa Pos. 5

VERIFICATION SUMMARY

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Input Set : D:\J&J-1825.ST25.txt

Output Set: N:\CRF4\12152005\I937665B.raw

L:65 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0